

Amendments to and Listing of the Claims:

Please cancel claims 27 and 30-32, without prejudice, such that the claims 1-21 and 23-26 remain pending in this application, as set forth in the following listing of the claims, which replaces all prior listings of the claims:

1. (Previously Presented) A method of functionally connecting a portion of the peripheral nervous system of a vertebrate to a portion of the central or peripheral nervous system of the vertebrate, comprising bringing the portion of the peripheral nervous system and the portion of the central or peripheral nervous system close to each other, applying to the gap between the two portions a fibrin glue mixture comprising a growth factor, fibrinogen, aprotinin and divalent calcium ions so that the fibrin glue mixture is simultaneously in contact with the two portions, forming an attachment between the portion of the peripheral nervous system and the portion of the central or peripheral nervous system of the vertebrate, and suturing or anastomosing the two portions of the nervous system to be connected.
2. (Original) The method of claim 1, wherein the portion of the peripheral nervous system is connected to a portion of the central nervous system.
3. (Original) The method of claim 1, wherein the growth factor is selected from the group consisting of a glial cell line-derived neurotrophic factor, transforming growth factor-beta, fibroblast growth factor, platelet-derived growth factor, and epidermal growth factor, vascular endothelial growth factor, and neurotrophin.
4. (Original) The method of claim 1, wherein the components of the fibrin glue mixture can be applied to the gap simultaneously or separately.
5. (Original) The method of claim 3, wherein the growth factor is fibroblast growth factor, which is acidic or basic fibroblast growth factor.
6. (Previously Presented) The method of claim 5, wherein the fibroblast growth factor is acidic fibroblast growth factor.

7. (Original) The method of claim 1, wherein the divalent calcium ions are provided by the addition of calcium chloride or calcium carbonate.

8. (Original) The method of claim 1, wherein the fibrin glue mixture comprises fibroblast growth factor, fibrinogen, aprotinin and calcium chloride.

9. (Original) The method of claim 1, wherein the fibrin glue mixture is acidic fibroblast growth factor, fibrinogen, aprotinin and calcium chloride.

10. (Original) The method of claim 9, wherein the fibrin glue mixture comprises 0.0001-1000 mg/ml of fibroblast growth factor, 10-1000 mg/ml of fibrinogen, 10-500 KIU/ml of aprotinin and 1-100 mM of calcium chloride.

11. (Original) The method of claim 10, wherein the fibrin glue mixture comprises 1 mg/ml of fibroblast growth factor, 100 mg/ml of fibrinogen 200 KIU/ml of aprotinin and 8 mM of calcium chloride.

12. (Previously Presented) A method of functionally reconnecting an avulsed cervical root to the spinal cord to be connected in a vertebrate, comprising bringing the avulsed cervical root close to the spinal cord, applying to the gap between the cervical root and the spinal cord a fibrin glue mixture comprising a growth factor, fibrinogen, aprotinin and divalent calcium ions so that the fibrin glue mixture is simultaneously in contact with the cervical root and the spinal cord, and forming an attachment between the cervical root and the spinal cord of the vertebrate.

13. (Original) The method of claim 12, wherein the growth factor is selected from the group consisting of a glial cell line-derived neurotrophic factor, transforming growth factor-beta, fibroblast growth factor, platelet-derived growth factor and epidermal growth factor, vascular endothelial growth factor, and neurotrophin.

14. (Original) The method of claim 12, wherein the components of the fibrin glue mixture can be applied to the gap simultaneously or separately.

15. (Original) The method of claim 13, wherein the growth factor is fibroblast growth factor, which is acidic or basic fibroblast growth factor.

16. (Previously Presented) The method of claim 15, wherein the fibroblast growth factor is acidic fibroblast growth factor.

17. (Original) The method of claim 12, wherein the divalent calcium ions are provided by the addition of calcium chloride or calcium carbonate.

18. (Original) The method of claim 12, wherein the fibrin glue mixture comprises fibroblast growth factor, fibrinogen, aprotinin and calcium chloride.

19. (Original) The method of claim 12, wherein the fibrin glue mixture comprises acidic fibroblast growth factor, fibrinogen, aprotinin and calcium chloride.

20. (Original) The method of claim 19, wherein the fibrin glue mixture comprises 0.0001-1000 mg/ml of fibroblast growth factor, 10-1000 mg/ml of fibrinogen, 10-500 KIU/ml of aprotinin and 1-100 mM of calcium chloride.

21. (Original) The method of claim 20, wherein the fibrin glue mixture comprises 1 mg/ml of fibroblast growth factor, 100 mg/ml of fibrinogen, 200 KIU/ml of aprotinin and 8 mM of calcium chloride.

22. (Cancelled)

23. (Previously Presented) The method of claim 1, further comprising introducing a tissue graft to the gap between the portion of the peripheral nervous system and the portion of the central nervous system.

24. (Previously Presented) The method of claim 23, wherein the tissue graft is a sural or intercostal nerve of the vertebrate.

25. (Previously Presented) The method of claim 12, further comprising introducing a tissue graft to the gap between the cervical root and the spinal cord.

26. (Previously Presented) The method of claim 25, wherein the tissue graft is a sural or intercostal nerve of the vertebrate.

27. – 33. (Cancelled)